3 Background

3.1 Historical Perspective – Other Similar Projects and Consortia

Montanans have always had the need for close communication, cooperation, and collaboration between their Law Enforcement and Emergency Responder agencies. The emergency situations the state can and has faced include natural disasters such as forest fires and earthquakes (the most recent large one in 1959 at a magnitude of 7.3), as well as manmade disasters such as the 1996 trail derailment in Alberton Gorge (and subsequent poisonous chlorine gas release) and the 1988 train derailment and explosion in Helena (when it was 30 below zero). In each situation, Montana's Emergency Responders have had to communicate and coordinate in order to react effectively to these emergencies and meet the needs of their citizens. While our emergency responders have always been successful at this, roadblocks have, at times, gotten in the way. Sometimes these roadblocks are technological ("My radio can't talk to your radio") and sometimes they are procedural and political ("That's not our procedure in this situation," or "That's not our policy,").

After the terrorist attacks of September 11, 2001, agencies in these communities and throughout the state and nation have felt an even greater need to develop and maintain plans of cooperation and coordination. Part of this effort has been to work toward the interoperability of the communications equipment used throughout each region and the entire state. Additionally, this effort has included revisiting, renewing, revising, and sometimes creating agreements of understanding and cooperation between the various stakeholder agencies.

More recently, everyone has been reminded of radio system failures such as was experienced in New Orleans with hurricane Katrina. New Orleans police and fire systems quickly lost communications as they lost backup generators in the ensuing floodwaters. Systems relied heavily on a few common simplex frequencies similar to Montana's Mutual Aid channels. These channels were quickly overwhelmed. Different systems were not connected and caused a lack of interoperability.

Often, the challenges of communications interoperability have been met through "home-grown" efforts, almost on a case-by-case basis. In many cases, the interoperability is good. Historically, however, communication problems are usually listed among the top five problems in post-incident reviews, which suggest that there is room for improvement.

To address and help remedy these situations, various entities within the State of Montana have been formed. The State of Montana began an effort in this regard at the state level several years back. Recently, Lewis & Clark County conducted a successful pilot interoperability project (the Concept Demonstration Project 1, or CDP1) to coordinate services between emergency responders. This project established direction and infrastructure for the county, as well as

demonstrated the technology and ability to implement interoperability across agencies – state, local, federal, and private. The Northern Tier Interoperability Consortium (NTIC), which consists of twelve Montana counties and four Indian nations, was formed to deal with these same issues. NTIC initiated the Northern Tier Interoperability Project (NTIP), adopted the same directions and infrastructure decisions made by Lewis & Clark County. Subsequently, the TIC also made the decision to adopt the directions and decisions already made by Lewis & Clark County and the NTIC. Of equal importance, both projects demonstrated the ability for diverse agencies to cooperate and succeed.

Part of the solution to the problems of interoperability is something called the Project 25 standard. Project 25 (P25) is a set of guidelines developed by radio system users for the purpose of standardizing the method of designing radio telecommunications networks for public safety agencies. Agencies such as the Association of Public Safety Communications Officials (APCO), the National Association of State Telecommunications Directors (NASTD), the Telecommunications Industry Association (TIA), the International Association of Chiefs of Police (IACP), several federal agencies and radio manufacturers have all participated in building this important standard.

Project 25 ensures that all systems following this standard will meet its five main objectives:

1. To make efficient use of the limited number of available public safety frequencies.
2. To permit interoperability among other Project 25-compliant agencies.
3. To ensure backward compatibility of the network.
4. To create smooth system migration via upgrades, additions, etc.
5. To provide the capability for scalable trunked and conventional networks.

3.2 Tri-County Interoperable Consortium By-Laws

ARTICLE I. Objectives:

The Objective of the Tri-County Interoperability Consortium (TIC) is to develop an interoperable multimode radio communications system based on definition of Interoperability established by the Statewide Interoperability Executive Council (SIEC) and other pertinent federal and/or state communication standards. Such a system will provide advanced digital, secure voice and data communications for public safety and improve homeland security through provision of the means by which military and civil authorities may communicate and will provide for backward compatibility to legacy systems. This objective will be carried out in two phases. Phase I is the Assessment and Planning Phase and Phase II is the Implementation Phase. These bylaws are intended to apply to the efforts undertaken by the Consortium.

Rationale For The Montana Statewide Interoperability Plan

1. “to replace non-interoperable two-way radio communication systems with an

interoperable system capable to handling communication among federal, state and local governments, and the military complying with a national standards baseline, improving public safety response and safety

2. "to replace existing equipment that is obsolete
3. "to incorporate new Federal regulations calling for narrow band spectrum systems
4. "for a radio system capable of supporting day-to-day operations of the participating agencies while also seamlessly able to handle emergency situations reliably, efficiently, enhancing safety of responders and the public through interoperability and predefined emergency communications planning and implementation."

3.3 Purpose of the Needs Assessment *Phase of This Project*

In general terms, the purpose of the *Needs Assessment* phase is stated in the following paragraphs from the consortium's statement of work:

> The Tri-County Interoperable Consortium is made up of Powell, Broadwater and Jefferson counties. These three counties physically border Lewis & Clark County, which is implementing a P25 Trunked interoperable public safety communication system. The design of the Lewis & Clark county system provides significant radio coverage overlap into Powell, Broadwater and Jefferson counties. The Tri-County Interoperable Consortium wishes to leverage this asset in order to improve interoperable communications among public safety responders within each county and with neighboring counties using the P25 standard for interoperability.
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> The objective of the Tri-County Interoperable Consortium is to expand upon the Lewis & Clark county interoperable P25 multimode radio communications system. That system is based on federal and state communication standards in which federal, state and local public safety and emergency management representatives can operate autonomously and transition seamlessly to communicate effectively in emergency mission roles. The system will provide secure voice and data communications for public safety while providing for backwards compatibility during its implementation. This objective will be carried out in three phases. Phase I is Capability Assessment and Implementation Strategy.
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> The portion of the project for which this Statement of Work is prepared is to conduct a capability assessment and implementation strategy for the Tri-County Interoperable Consortium. The project has as its scope a broad Needs Assessment of the member counties of Tri-County Interoperable Consortium, a Gap Analysis to determine the gap between where Tri-County Interoperable Consortium members are today and where they desire and need to be, as determined by the Needs Assessment. The project will produce a high-level schedule and workplan, to fill that gap, and a high-level cost to implement it. In addition, the project has a preliminary design as an explicit deliverable.